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JOINT ADVANCED WARFIGHTING SCHOOL



MELTING IN THE ARCTIC:
PREPARING NOW FOR POSSIBILITIES IN THE FUTURE

by

Michael J. Zaiko

Commander, United States Navy

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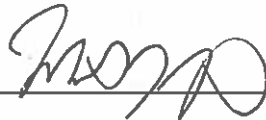
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A paper submitted to the Faculty of the Joint Advanced Warfighting School in partial satisfaction of the requirements of a Master of Science Degree in Joint Campaign Planning and Strategy. The contents of this paper reflect my own personal views and are not necessarily endorsed by the Joint Forces Staff College or the Department of Defense.

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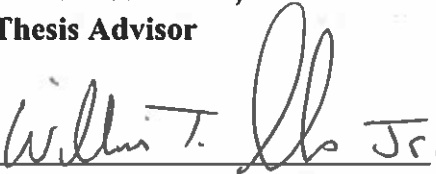
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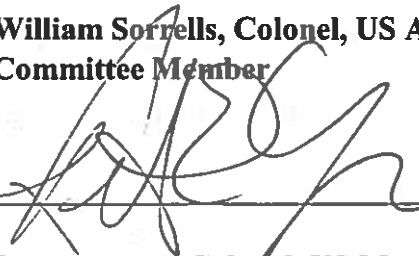
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ABSTRACT

The Arctic region has traditionally been trapped by the coverage of seasonal ice, but by 2030 the area is predicted to become a new frontier for humanity. Mankind will undoubtedly bring with it all the varying levels of environmental impacts associated with increased human presence such as shipping, exploration, research, tourism, military patrols, and unfortunately the potential for conflict. So far, climate change, diplomacy, and economic factors have been the major driving factors in shaping this area of the world while regional cooperation and international law appear to be paving the way towards peace, security, and stability.

Unfortunately authorities anticipate “confrontation and conflict as states scramble and race for resources and control of sea lanes in the Arctic,” similar to situations taking place in other parts of the world.¹ For example, diplomacy alone has not been sufficient in settling disputes in the South China Sea. As Secretary of Defense Ash Carter recently stated, “Many countries in the region are coming to the United States and asking us to do more with them so that we can keep the peace out here.”² The United States military will need to be ready to stand in a similar fashion off its northern Alaskan coast in order to defend its sovereign territory.

This thesis argues that the time has already arrived for the U.S. military to address the potential for military conflict in the Arctic region and steps need to be taken now to mitigate such threats.

¹ Ingrid Lundestad and Øystein Tunsjø, “The United States and China in the Arctic,” *The Polar Record* vol. 51, no. 4 (2015): 393.

² Lisa Ferdinando, “Carter Visits USS Roosevelt in South China Sea,” DoD News, Defense Media Activity, <http://www.defense.gov/News-Article-View/Article/627872/carter-visits-uss-roosevelt-in-south-china-sea> (accessed February 3, 2016).

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DEDICATION

To my wife, children, family, classmates, and “Shipmates” everywhere.

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CHAPTER 1

Introduction: Importance of the Arctic Region

Although the debate continues today as to who the first person was to reach the North Pole and when, eventually someone stepped foot onto the ice above the North Pole and declared that he and those that followed him finally had the ability to reach such northern areas of the globe.¹ Fast forward 100+ years and we now face the eventuality that the ice in Arctic waters will melt in sufficient amounts as to allow commercial shipping traffic, tourists, research and exploration vessels, and military ships protecting their respective countries' sovereignty to transit through those same areas on a routine basis. Eight countries surround the Arctic Ocean enjoying debated sovereignty in a region still being carved up as to where lines should be drawn on a map (Figure 1). Numerous regions of the ocean floor remain uncharted and the ever growing possibility of environmental catastrophe creeps into an area that previously was secure from human interaction.

The Arctic region has traditionally been trapped by the coverage of seasonal ice, but by 2030 the area is predicted to become a new frontier for humanity. Mankind will undoubtedly bring with it all the varying levels of environmental impact associated with increased human presence such as shipping, exploration, research, tourism, military patrols, and unfortunately the potential for conflict. So far, climate change, diplomacy, and economic factors have been the major driving factors in shaping this area of the

¹ Warren E. Leary, "Who reached the North Pole first? A researcher lays claim to solving the mystery," *New York Times*, February 17, 1997.

world while regional cooperation and international law appear to be paving the way towards peace, security, and stability.

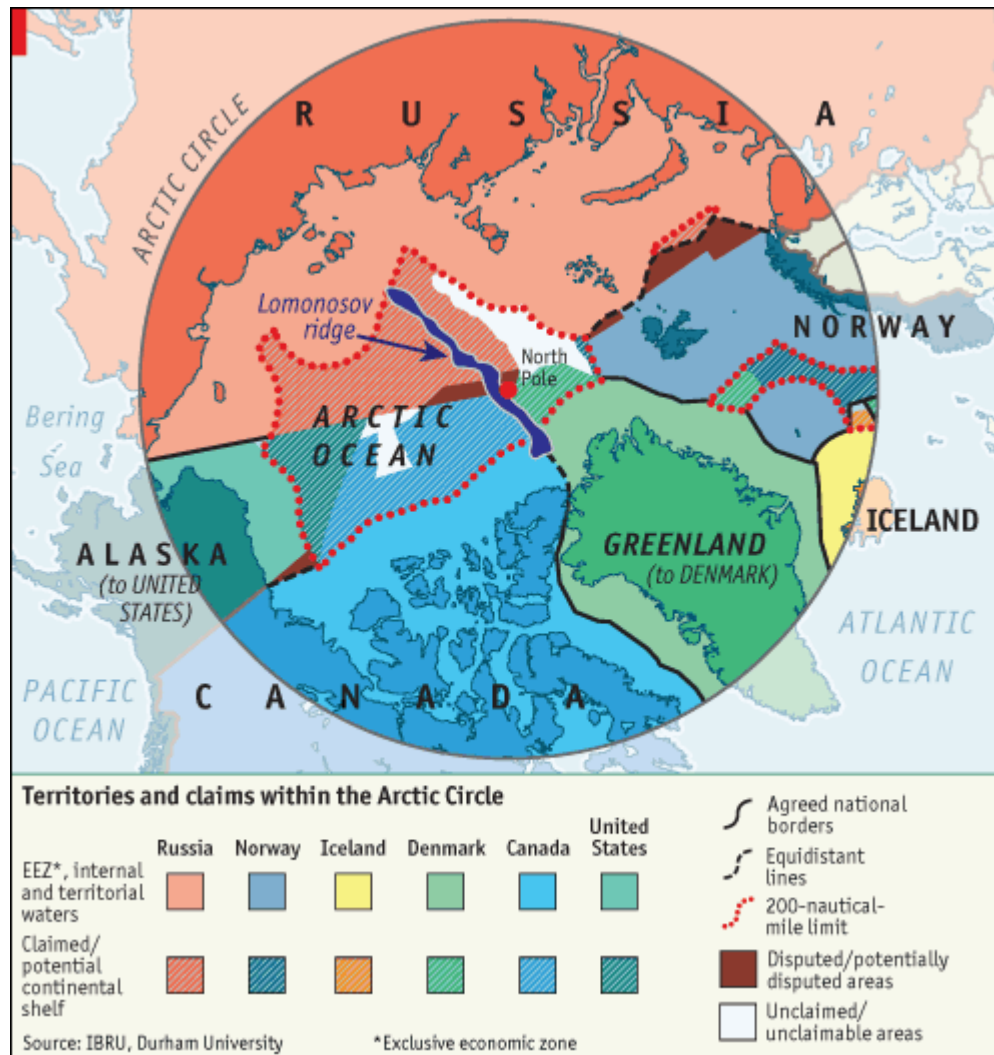


Figure 1. Map of territories and claims within the Arctic Circle.²

² Max Fisher, "40 more maps that explain the world," *The Washington Post*, January 13, 2014, <https://www.washingtonpost.com/news/worldviews/wp/2014/01/13/40-more-maps-that-explain-the-world/> (accessed February 8, 2016).

Unfortunately authorities anticipate “confrontation and conflict as states scramble and race for resources and control of sea lanes in the Arctic,” similar to situations taking place in other parts of the world.³ For example, diplomacy alone has not been sufficient in settling disputes in the South China Sea. As Secretary of Defense Ash Carter recently stated, “Many countries in the region are coming to the United States and asking us to do more with them so that we can keep the peace out here.”⁴ The United States military will need to be ready to stand in a similar fashion off its northern Alaskan coast in order to defend its sovereign territory.

This thesis argues that the time has already arrived for the United States military to address the potential for military conflict in the Arctic region and steps need to be taken now to mitigate such threats. But first, details will be provided for why the Arctic is important to the United States.

Trade

On May 5, 2015, the United States Census Bureau released data detailing U.S. imports and exports for 2014. In this data, numbers showed that Pacific Rim countries accounted for approximately 35% of all U.S. imports, with China and Japan combining for approximately 25% of that number. U.S. exports to the same Pacific Rim region made the same lengthy trip, only in a reverse direction, accounting for approximately 22% of U.S. exports.⁵

³ Ingrid Lundestad and Øystein Tunsjø, “The United States and China in the Arctic,” *The Polar Record* vol. 51, no. 4 (2015): 393.

⁴ Lisa Ferdinando, “Carter Visits USS Roosevelt in South China Sea,” DoD News, Defense Media Activity, <http://www.defense.gov/News-Article-View/Article/627872/carter-visits-uss-roosevelt-in-south-china-sea> (accessed February 3, 2016).

⁵ U.S. Department of Commerce, U.S. Census Bureau News, *U.S. Goods Trade: Imports & Exports by Related-Parties (2014)*, by Glenn Barresse (Washington, DC, May 5, 2015).

As Figure 2 shows, Chinese cargo ships bound for cities such as Savannah, New York, and Boston leave Shanghai, steam some 8,500 nautical miles across the Pacific Ocean, pay approximately \$200,000 in tolls to transit the Panama Canal, sail an additional 1,200 nautical miles north through the Caribbean, and then proceed on to U.S. east coast ports for delivery.⁶ Total distance traveled between ports is approximately 10,550 nautical miles.

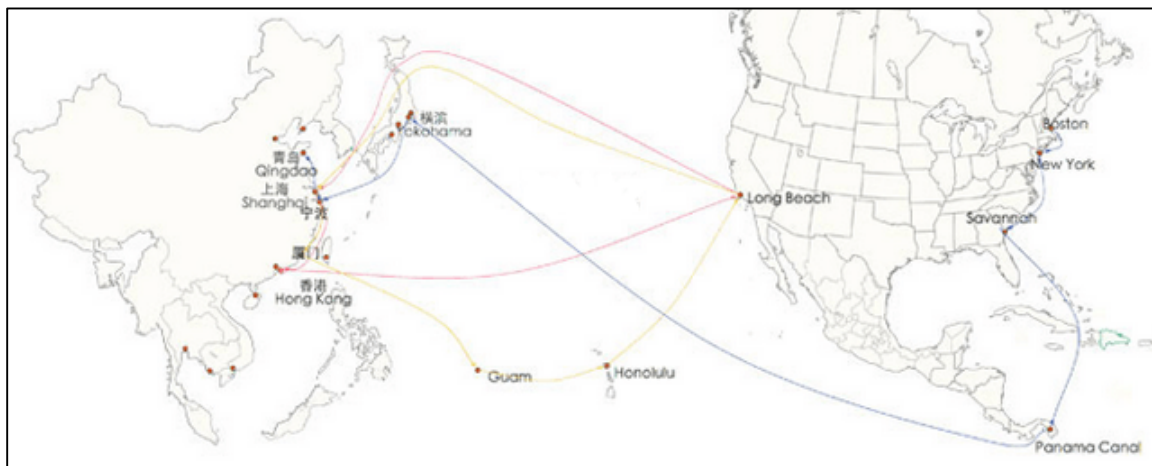


Figure 2. Map of shipping routes from China to the United States.⁷

Europe also conducts a significant amount of trade with Pacific Rim countries. Current routing for those ships takes mariners south through the South China Sea, through the Strait of Malacca, across the Indian Ocean, through the Bab el-Mandeb Strait, north up the Red Sea, through the Suez Canal (approximately \$325,000 per transit),

⁶ Before It's News Inc., "Panama Canal and Suez Canal – pricing policies," <http://beforeitsnews.com/eu/2013/05/panama-canal-and-suez-canal-pricing-policies-2521474.html> (accessed March 7, 2016).

⁷ Cargo From China, "Shipping Routes from China," <https://cargofromchina.com/shipping-routes/> (accessed January 4, 2016).

across the Mediterranean Sea, through the Strait of Gibraltar, and then on to receiving ports and back (Figure 3).⁸ Total transit is approximately 10,600 nautical miles.

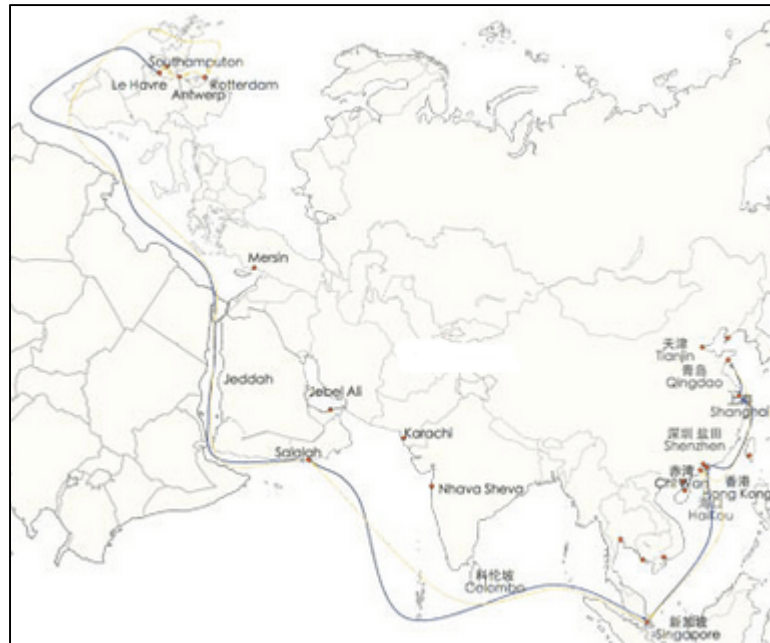


Figure 3. Map of shipping routes from China to Europe.⁹

Without doing the complete math, obvious impacting factors for transit costs include the distances and fees required to transit to and from the Panama and Suez Canals for either route. One glaring difference between the two canals is the size of cargo ships accepted relative to the number of containers carried. Otherwise, transit times and tolls negate each other in today's global market.

	<u>Panama Canal</u>	<u>Suez Canal</u>
Max size cargo ship	4,500 containers	9,000 containers
Average toll (in 2008)	\$200,000	\$325,000
Transit time	*10 days faster than Suez Canal ¹⁰	

⁸ Before It's News Inc., "Panama Canal and Suez Canal – pricing policies," <http://beforeitsnews.com/eu/2013/05/panama-canal-and-suez-canal-pricing-policies-2521474.html> (accessed March 7, 2016).

⁹ Cargo From China, "Shipping Routes from China," <https://cargofromchina.com/shipping-routes/> (accessed January 4, 2016).

¹⁰ Peter T. Leach, "Two Canals, One Amazing Race," JOC.com, Apr 15, 2013, under "Maritime News-Trade Times," http://www.joc.com/maritime-news/trade-lanes/two-canal-one-amazing-race_20130415.html (accessed March 7, 2016).

But other avenues exist for the largest of container ships by providing shortened transit routes while avoiding costly canal tolls. The Northeast Sea Route (commonly referred to as the Northern Sea Route or NSR) and the Northwest Passage are much shorter than traditional sea routes, in some cases by as much as 40% (Figure 4).¹¹ Unfortunately the two Arctic shipping routes are traditionally only open during summer months when ice recedes towards the North Pole. However, according to the U.S. Navy's *Arctic Roadmap*, by 2030 the Northern Sea Route and Transpolar Route should be navigable 130 days per year, with open water passage up to 75 days per year. The Northwest Passage will also be increasingly open during late summer and early fall.¹²

While search and rescue capabilities will be limited, shipping companies are plotting their strategies now as to when they will use the Northern Sea Route or Northwest Passage. In fact, in the past few years, Chinese shipping company *COSCO* turned its eyes northward and has already made the transit multiple times. In 2014, *COSCO's Yong Sheng* became the first container-transporting vessel to transit from Dailan, China to Rotterdam, Netherlands via the NSR. According to Huigen Yang, Director General of the Polar Research Institute of China, by 2020 as much as 15% of China's maritime trade may travel via the NSR with a significant amount of that going to the United States.¹³ As the ice continues to melt, other shipping companies will surely follow suit.

¹¹ Ingrid Lundestad and Øystein Tunsjø, "The United States and China in the Arctic," *The Polar Record* vol. 51, no. 4 (2015): 393.

¹² U.S. Department of the Navy, Chief of Naval Operations, *Arctic Roadmap, 2014-2030*.

¹³ Alessandro Sassoon, "Over the Top: the Emergence of Arctic Ocean Trade," *Glimpse from the Globe*, May 8, 2014, under "Economics," <http://www.glimpsefromtheglobe.com/topics/economics/over-the-top-the-emergence-of-arctic-ocean-trade/> (accessed January 5, 2016).



Figure 4. Map depicting the Northwest Passage and Northern Sea Route.¹⁴

Tourism

As the ice recedes, tourists are expected to flock to the region in increased numbers. From a U.S. perspective, statistics show that from October 2013 to September 2014 an estimated 1.93 million visitors made the trip to Alaska bringing approximately \$1.8 billion to the Alaskan economy.¹⁵ Although not officially released yet, statistics are showing that the number of tourists that visited Alaska in 2015 increased by over 5%

¹⁴ Ibid.

¹⁵ Alaska Department of Commerce, Community and Economic Development, "Economic Impact of Alaska's Visitor Industry (October 2013 - September 2014)," State of Alaska, <https://www.commerce.alaska.gov/web/ded/DEV/TourismDevelopment/TourismResearch.aspx> (accessed January 5, 2016).

from the previous year, giving every indication that numbers will continue to rise.¹⁶ As the United Nations Environment Programme stated in 2007 regarding the Arctic region as a whole, “reduced sea ice cover for longer periods of time is facilitating improved tourist access and extending visitor seasons.”¹⁷

Even outside investors such as Chinese tycoon Huang Nubo recently put in a bid to purchase roughly 300 square kilometers of land in northeast Iceland in order to build a tourist eco-resort. The bid would have given China access to approximately 0.3% of the country of Iceland, been strategically located near one of Iceland’s largest glacial rivers, and given China access to several potential deep-water ports along the Northern Sea Route. While Mr. Nubo is not technically affiliated with the Chinese government, the deal would have given China a significant foothold in the Arctic. China would have been granted access to fresh glacial water that could have been transported to its mainland, and deep water port facilities capable of tending to a myriad of Chinese shipping vessels predicted to transit the area in the coming years. In the end the deal fell through, but not before stirring up quite a debate about China’s growing influence in the region.¹⁸

Exploration and Research

The Arctic region is estimated to hold approximately 90 billion barrels of oil, accounting for about 13% of the world’s total oil capacity, plus 30% of the world’s

¹⁶ Alaska Department of Commerce, Community and Economic Development, Division of Economic Development, *Alaska Visitor Statistics Program VI Interim Visitor Volume Report (Fall/Winter 2014-15)*, by McDowell Group, Open-file report, Alaska Visitor Statistics Program (Juneau, Alaska, 2015).

¹⁷ United Nations Environment Programme, “Tourism in the Polar Regions-The Sustainability Challenge,” United Nations, http://www.ecotourism.org/filedepot_private/14/DTIx0938xPA-PolarTourismEN.pdf (accessed March 7, 2016).

¹⁸ Isabella Mroczkowski, “China’s Arctic Powerplay,” *The Diplomat* (February 15, 2012), <http://thediplomat.com/2012/02/chinas-arctic-powerplay/> (accessed September 25, 2015), 2.

conventional reserves of natural gas.¹⁹ Figure 5 shows shaded areas across the Arctic region where oil and natural gas reserves are believed to be and where companies are likely to invest.



Figure 5. Map depicting predicted oil and natural gas resources in the Arctic.²⁰

Searching for oil off the northern coast of Alaska is easier today than compared to just 30 years ago. As temperatures rise and average rates of Arctic ice coverage decrease, areas such as the Chukchi and Beaufort Seas find themselves with an extra four weeks of

¹⁹ Keith Johnson, "Searching for Leads in the Opening Arctic," *Foreign Policy* (September 14, 2015), <http://foreignpolicy.com/2015/09/14/searching-for-leads-in-the-opening-arctic/> (accessed October 14, 2015), 16.

²⁰ Hobart King, "Oil and Natural Gas Resources of the Arctic," *Geoscience News and Information*, <http://geology.com/articles/arctic-oil-and-gas/> (accessed January 6, 2016).

ice-free time each year. That extra month of exploration can be a make-or-break difference when the drilling season traditionally only lasts from July through October.²¹

Even as oil prices sink to near record levels, companies such as Shell and ExxonMobil are bidding for rights to drill off Alaska's northern coast. But Shell and ExxonMobil aren't the first companies to show interest in Arctic oil exploration. Just eight years earlier an Anglo-Dutch company sank billions of dollars into offshore leases in a similar region looking to do just the same – tap into the Arctic's untouched frontier of oil exploration.²²

Areas such as Greenland are “endowed with substantial deposits of minerals including rare earths, uranium, iron ore, lead, zinc, petroleum, and gemstones.”²³ Multinational corporations are already showing signs of exploring these untapped resources by submitting bids for exploration and devoting development dollars towards what they believe to be the next long term investments for “attractive commercial opportunities.”²⁴

Countries from around the world are setting their sights on the Arctic. Even countries like China, Denmark, and Greenland are building capabilities, capacities, and partnerships in the hopes of exploring the mysteries of the Arctic sea floor for the betterment of their economies.²⁵ For example, Copenhagen and Beijing became strategic partners in 2008 agreeing to cooperate in the fields of technology, science, and trade. Another example, China's Sichuan Xinye Mining Investment Company held talks in

²¹ Johnson, 17.

²² Johnson, 16.

²³ Mroczkowski, 2.

²⁴ U.S. Department of the Navy, Chief of Naval Operations, *Arctic Roadmap, 2014-2030*, 7.

²⁵ Mroczkowski, 2.

2011 with Greenland on investing in an iron ore deposit site, and Jiangxi Union Mining has explored for copper in central Greenland for a number of years.²⁶

Even though Norway has been one of the most vocal countries to speak out against China's involvement in the Arctic region, China's Yellow River Research Center has had a station in Norway for over a decade collecting environmental, oceanic, and scientific data for research primarily on climate change.²⁷ China is just one of many outsiders looking into the opportunities presenting themselves in the Arctic.

Calculated into investments are high risks associated with operating under the hazardous conditions presented by the Arctic environment. What remains to be seen, though, is when the benefits of exploration will outweigh the costs of doing business in the region as the ice melts. Regardless of timing, there will always be a need to transport newly found resources to a port or harbor via shipping or underwater pipe lines. Investments in cold weather technology, security, search and rescue, disaster prevention and relief, and infrastructure support for such activities are also required and need to be calculated into long term investments. In today's world where resources and rights to territories are becoming increasingly contested and expensive to find, the Arctic presents an area for both renewed sustainability and national prestige.

Sovereignty

In 2010, President Obama released Executive Order 13547 entitled, "Stewardship of the Ocean, Our Coasts, and the Great Lakes."²⁸ In this Order, the President outlines

²⁶ Ibid., 2.

²⁷ Ibid., 2.

²⁸ Executive Order no. 13547, *Code of Federal Regulations*, title 3, p.227-231 (2010), 1. Titled "Stewardship of the Ocean, Our Coasts, and the Great Lakes."

policy that, among other things, will “support sustainable, safe, secure, and productive access to, and uses of the ocean, our coasts, and the Great Lakes.”²⁹ Included in this list of oceans is the Arctic Ocean. It is a body of water partially outlined by 1,000 miles of United States coastline entitling the United States to enjoy a 12 nautical mile territorial sea and a 200 nautical mile Exclusive Economic Zone (EEZ) out into its coastal waters. With sovereignty comes the need for defense, and with defense comes the need for military presence and involvement.³⁰

Thesis Intent

U.S. military assets are routinely tasked with providing forward presence and protection of U.S. interests around the world. Unfortunately the number of assets available to patrol the world are limited and not projected to increase in numbers any time soon. However, events that have taken place in areas such as the South China Sea (SCS) have been deemed by American leadership as requiring U.S. military presence in order to protect U.S. interests and ease tensions amongst actors in the region.³¹ The possibilities for misunderstanding, miscalculation, and disagreement in the SCS run high, while diplomacy and economics pave the way towards peace, stability, and prosperity. In some cases, those possibilities have already become reality. One such case exists in the Spratly and Paracel Islands. Territorial disputes in the area between China and its neighbors have often escalated to the brink of military conflict.

²⁹ Ibid., 2

³⁰ United Nations, “United Nations Convention on the Law of the Sea,” Article 57, December 10, 1982. http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf (accessed November 15, 2015).

³¹ Bonnie S. Glaser, *Armed Clash in the South China Sea* (America: Council on Foreign Relations, 2012), 1-2.

In the South China Sea the concept of a global commons shrinks in scale.³²

Countries with adequate military capabilities find themselves able to protect and enforce what they perceive to be their national interests against larger competitors such as China. Many other countries rely on the U.S. military to provide protection and enforcement of their claims. In either case, because the U.S. has national interests in the region, many times their interests overlap the interests of the United States. In order to protect its national interests, American military assets traditionally operate out of bases residing on allied soil or patrol the waters off foreign shores in accordance with international law.

Underlying theme

The question presented in this thesis is: why wouldn't the Arctic be treated in a similar fashion as the South China Sea? U.S. military presence in the Arctic remains at minimal levels; Infrastructure is minimal to non-existent; Search and rescue capabilities are limited; Allied cooperation in the region has not been developed; Territorial disputes remain between nations; and Russia is building up presence and power in the region every day. Eventually Russian presence and power may have to be contested, and the timing may not be at the choosing of American officials.

³² United Nations Environment Programme, "Division of Environmental Law and Conventions: Definition of Global Commons," United Nations, <http://www.unep.org/delc/GlobalCommons/tabid/54404/> (accessed January 5, 2016).

The 'Global Commons' refers to resource domains or areas that lie outside of the political reach of any one nation state. International law identifies four global commons: the High Seas (not Territorial Seas); the Atmosphere; Antarctica; and, Outer Space.

After the Northwest Passage is opened up it will become a new “axial sea route between Atlantic and Pacific,” and the sea route between Europe, Asia, and North America will be shortened by 5,200 to 7,000 nautical miles. Whoever controls the Arctic sea route will control the world economy and a new internationally strategic corridor.

Li Zhenfu³³

Even China is showing interest in exploring the Arctic for resources and as a key trade route for its economy. In 2013, China was approved as an “Observer” nation in the Arctic Council giving its leadership valuable insight into key decisions being made in the region. Fortunately for Arctic nations, observer status negates any Chinese authority in deciding sovereignty or territorial claims in the region. However, that doesn’t mean that China won’t try to capitalize on newly opened sea routes providing access to U.S. waters.³⁴ Highlighted in Mr. Zhenfu’s comments above, China understands the value in maintaining “control” of this “new international strategic corridor.” Because of factors like these, the U.S. military must start making its presence known in the Arctic now in order to show that uncontested access to its waters will not be accepted.

³³ David C. Wright, *The Dragon Eyes the Top of the World: Arctic Policy Debate and Discussion in China*, U.S. Naval War College-China Maritime Studies Institute (New Port: Naval War College Press, 2011), 1.

³⁴ United Nations Arctic Council, “Arctic Council Observers,” United Nations, <http://www.arctic-council.org/index.php/en/about-us/arctic-council/observers> (accessed September 14, 2015).

As of May 2013, China is one of 12 non-arctic nations admitted into the Arctic Council under an Observer status allowing them access to meetings and an ability to provide information, but not decision making authority on Arctic matters.

CHAPTER 2

South China Sea as a comparative case study

In Executive Order #13547, President Obama stressed that in order for the United States to:

. . . achieve an America whose stewardship ensures that the ocean, our coasts, and the Great Lakes are healthy and resilient, safe and productive, and understood and treasured so as to promote the well-being, prosperity, and security of present and future generations, it is the policy of the United States to . . . exercise rights and jurisdiction and perform duties in accordance with applicable international law, including respect for and preservation of navigational rights and freedoms, which are essential for the global economy and international peace and security.¹

As good stewards of the oceans, the United States is charged with promoting adherence to international law. The global commons provides a medium to practice international law by ensuring that international shipping, tourism, research, and exploration can all benefit from the blessings that the oceans provide.² But unfortunately to do so there is always the possibility for misunderstanding, miscalculation and disagreement which could lead to conflict and war anywhere around the world.

The frozen Arctic region shares many similarities to the already active environment of the South China Sea including the benefits of a global commons and practice of international law. Both areas have contested sovereignty claims and territorial disputes. Both regions share shipping routes that are shared by local economies and the larger global commons. Both areas have the potential to erupt into hostile playing fields

¹ Executive Order no. 13547, *Code of Federal Regulations: Stewardship of the Ocean, Our Coasts, and the Great Lakes* (2010), 1.

² United Nations Environment Programme, "Division of Environmental Law and Conventions: Definition of Global Commons," United Nations, <http://www.unep.org/delc/GlobalCommons/tabid/54404/> (accessed January 5, 2016).

amongst militaries should diplomacy fail in settling disputes and disagreements. Both areas provide basing opportunities for U.S. assets and allies in pursuance of national interests. In other words, underlying reasons for U.S. military involvement in the South China Sea rests on the requirements of protecting U.S. and allied interests, countering aggression from a competitive actor, standing ready to provide assistance during natural disasters, and supporting the pursuance of settling territorial disputes peacefully through diplomatic means and economics.

Trade, Tourism, and Exploitation

Unlike other transit routes such as the Persian Gulf, the South China Sea is strategically located at the center of trade markets making its stability vital to many economies throughout the world. Every year the equivalent of \$7 trillion (USD) worth of trade passes through the South China Sea, including that going to and from the United States.³ The waterway provides passage for energy supplies along with finished and unfinished goods. Roughly two thirds of South Korea's energy supplies, nearly 60% of Japan's and Taiwan's energy supplies, and 80% of China's crude oil imports come through the South China Sea.⁴ Because South Korea, Japan, and Taiwan are U.S. allies, U.S. interests in the region tend to be linked to the well-being of the economies of those nations.

³ Chris Zappone, "South China Sea dispute: Fancy a cruise in hotly contested waters?" *The Sydney Morning Herald*, August 4, 2015, under "World," <http://www.smh.com.au/world/south-china-sea-dispute-fancy-a-cruise-in-the-hotly-contested-waters-20150802-giq20i.html> (accessed January 5, 2016), 4.

⁴ Robert D. Kaplan, *Asia's Cauldron: The South China Sea And The End Of A Stable Pacific* (New York: Random House LLC, 2014), <http://www.businessinsider.com.au/why-the-south-china-sea-is-so-crucial-2015-2> (accessed January 5, 2016), 4. Excerpt from the book was available online but page numbers were not included. Section of the book is entitled "Why the South China Sea is so crucial."

Statistics were not available detailing exact figures for tourism to the South China Sea as a whole. However, one can imagine the immense influence and potential tourism has on the region. With so many locations to visit providing economic opportunities and relaxation, tourism will undoubtedly continue to grow in this region of the world. Even with territorial disputes ensuing in the region, tourism is finding a way into the mix on the disputed islands. China and Vietnam have already sent tourists to contested islands in order to provide legitimacy to their territorial claims. The Philippines plans on buying a boat and creating lodging for tourists on Pag-asa Island, a small community island that makes up part of the Spratly Islands.⁵

The South China Sea also has proven oil reserves of seven billion barrels, and an estimated 900 trillion cubic feet of natural gas available for exploration and sale. While still being debated as to the validity of its data, China claims that the SCS will ultimately yield 130 billion barrels of oil, making it second on the list for global reserves only behind those of Saudi Arabia. Some Chinese officials even profess that the area will eventually be known as “the second Persian Gulf.”⁶

Fueling stressful conditions in the area, China’s drive and aggression towards oil exploration and exploitation evolves around its predicament concerning energy consumption versus energy production. Chinese oil reserves account for only 1.1% of the world total, while it consumes over 10% of the world’s oil production and over 20% of all the energy consumed on the planet.⁷ This predicament has put China in a bind to

⁵ Zappone, 4.

⁶ Kaplan, 4.

⁷ Ibid., 4.

find resources in order to fuel its growing economy, and as such, has forced China to be aggressive in its movements towards resolving territorial disputes.

Territorial Disputes

Both the Arctic Ocean and South China Sea share the characteristic of being defined by countries that have a history of not getting along. As one columnist writes, China “is a complicated multipolar regional context across a variety of military, diplomatic, and economic fronts.”⁸ Because of past differences contention often seeps into negotiations regarding boundaries and territorial claims. What is unique to the situation though is that “with the exception of China, all the claimants of the South China Sea have attempted to justify their claims based on their coastlines and the provisions of UNCLOS (United Nations Convention on the Law of the Sea).”⁹ China routinely contests that the entire SCS is solely “theirs” based off of historical context and a selfishly drawn boundary claim from 1947 described as the “Nine-Dash Line.”¹⁰

Each country in the region defines its strategic goals and end states through a lens that benefits its way of life, often driving the propensity towards conflict in the eyes of their counterparts.¹¹ While the South China Sea forms the geostrategic core of Southeast Asia, just recently China began to impart a maritime influence on the region and started to contest maritime claims based off its historical precedence. As Russia and the U.S. withdrew over the past few decades from Vietnam and the Philippines respectively,

⁸ Sean Creehan, “Assessing the risks of conflict in the South China Sea,” *The SAIS Review of International Affairs* 32, no. 1 (Winter/Spring 2012): 125.

⁹ Bonnie S. Glaser, *Armed Clash in the South China Sea*.

¹⁰ Denny Roy, *Return of the Dragon: Rising China and Regional Security* (New York: Columbia University Press, 2013), 223-24.

¹¹ Aaron L. Friedberg, *A Contest for Supremacy: China, America, and the Struggle for Mastery in Asia* (New York: W. W. Norton & Company, Inc., 2011), 120.

China began a movement of establishing a “Chinese Lake” in the SCS in pursuance of its national interests.¹²

As a counter to growing Chinese influence in the region, the Association of Southeast Asian Nations (ASEAN) was formed, and in 1995 united against China in protest of an incident that took place on Mischief Reef. The incident occurred between the Philippines and China where the former found out that China had occupied the reef which is located in an area previously claimed by the Philippines.¹³ Since the incident, China has constructed a three-story building and five octagonal concrete structures, all for military use.¹⁴ While stopping short of major conflict, the incident highlighted the potential for escalation in the area and is just one example of the region’s ongoing territorial disputes.

Since 2009, multiple incidents have taken place in the SCS over fishing and natural resource exploration with most of them involving Chinese military officials in conflict with Philippine or Vietnamese mariners.¹⁵ With a focused pivot to Asia, the U.S. routinely finds itself immersed in disputes such as those between neighboring SCS nations. However, U.S. involvement is usually limited only to an insistence that solutions to sovereignty disputes and law enforcement issues be handled in accordance with international law.

According to Stein Tonnesson’s 2015 article entitled *The South China Sea: Law Trumps Power*, the only way to solve such sovereignty disputes and law enforcement

¹² Eric Hyer, “The South China Sea Disputes: Implications of China’s Earlier Territorial Settlements,” *Public Affairs* 68, no.1 (Spring 1995): 36.

¹³ Mikael Weissmann, “The South China Sea: Still No War on the Horizon,” *Asian Survey* 55, no.3 (May/June 2015): 602.

¹⁴ Kaplan, 17.

¹⁵ Stein Tonnesson, “The South China Sea: Law Trumps Power,” *Asian Survey* 55, no.3 (May/June 2015): 456.

issues is through the courts since all countries involved at least profess to an adherence to international law.¹⁶ However, Denny Roy explains in his book, *Return of the Dragon*, that China has tended to show an aggressive military side when handling such territorial disputes and legal matters. For example, in March and July 2010, China conducted naval exercises in the SCS which included the firing of 71 missiles of different types with an appeared intent of demonstrating its resolve to fight to defend its claims if necessary.¹⁷

The exercises were in direct conflict with a regional “Declaration on the Conduct of the Parties of the South China Sea” signed in 2002 intended to promote the pursuance of claims “without resorting to the threat or use of force” and “to exercise self-restraint in the conduct of activities that would complicate or escalate disputes and affect peace and stability.”¹⁸ While law provides the means for discussion and debate, military actions on the part of Chinese officials appears to have been intended to provide a level of influence as to where such discussions and debates should go.

Roy sums up China’s strategy in the SCS best when he states that Chinese officials are “keeping the PRC’s claims[s] ambiguous [as] a deliberate Chinese strategy to reduce the chance of confrontation while at the same time maximizing what the Chinese might eventually gain.”¹⁹ But recent confrontation was escalated on September 9, 2015, when U.S. reconnaissance aircraft took pictures and video of China’s attempt to transform previously uninhabited reefs into military equipped islands throughout the SCS.²⁰ U.S. officials continue to watch the buildup of military capacity on these

¹⁶ Tonnesson, 477.

¹⁷ Roy, 228.

¹⁸ Ibid., 228.

¹⁹ Ibid., 224.

²⁰ Edward Wong, “Xi Again Defends China’s Claim to South China Sea Islands,” *New York Times*, November 7, 2015, under “Asia Pacific,” http://www.nytimes.com/2015/11/08/world/asia/xi-jinping-china-south-china-sea-singapore.html?_r=0 (accessed January 6, 2015).

manmade islands fearing that China's actions may eventually lead to military confrontation. Such a concern is also on the minds of leadership of neighboring nations, most relying on the United States to provide military defense and security.²¹

On October 31, 2015, President Xi Jinping of China proclaimed that the "islands in the South China Sea have been China's territory since ancient times, and the Chinese government must take responsibility to safeguard its territorial sovereignty and legitimate maritime interests."²² Xi further proclaimed that countries from outside the region should respect the need of Asian nations in order to provide for a "peaceful and stable environment" so that nations can develop rapidly in the region.²³

Unfortunately China's actions such as its missile firings of 2010 give an opposite impression of its intentions. In 1995, a series of events led up to China's decision to conduct military exercises in the vicinity of Taiwan involving the launch of several surface to surface missiles. As a counter to China's provocative actions and as a way of stabilizing the situation between China and Taiwan, the United States sent two aircraft carriers into the Taiwan Strait and increased political dialogue with Chinese officials on behalf of Taiwan. In line with his 1994 "engagement policy," President Clinton stressed the importance of developing a strategic partnership with China as a way of easing tensions in the area.²⁴ Although the issue of Taiwan reunification with mainland China

²¹ Jim Sciutto, "Exclusive: China warns U.S. surveillance plane," September 15, 2015, under "U.S. Military," <http://www.cnn.com/2015/05/20/politics/south-china-sea-navy-flight/> (accessed January 5, 2016).

²² Wong, 3.

²³ Ibid., 1.

²⁴ Robert J. McMahon and Thomas W. Zeiler (eds.), *Guide to U.S. Foreign Policy: A Diplomatic History* 1, Los Angeles, CA: Sage CQ Press, 2012), 513.

has made the news from time to time since, U.S. military presence and involvement in the region continues to enable cooler heads to prevail and diplomacy to work.²⁵

Linking back to the Arctic

Major differences between the South China Sea and the Arctic Ocean include the names of the actors in play, the history between them, time, and temperature in a literal sense. However, the two bodies of water share one unique similarity – the potential for conflict. As is the case in the SCS, future endeavors in the Arctic Ocean could quickly develop into a playground of discontent and contest if not handled properly and addressed correctly by the United States and its military. Diplomacy alone will not prevent all cases of disagreement that could lead to undue stress and conflict.

Even with the build-up of Chinese military-like islands, the U.S. military is poised to react, influence, and stabilize events in the SCS, allowing diplomacy to work in its quest to resolve current and future regional issues. Fast forward to a time when the Arctic is alive with human presence and all of the joys and challenges that mankind brings with it, and the military ideally would find itself in a very similar situation. Soldiers, sailors, and airmen would be called upon to provide U.S. officials a power-influencing tool such as military might to mitigate Arctic disputes not capable of being settled through solely diplomatic means. One big difference in the Arctic (as compared to the SCS) is the fact that issues would need to be resolved much closer to home.

²⁵ Laurie Burkitt, Andrew Scobell, and Larry M. Wortzel (eds.), *The Lessons of History: The Chinese People's Liberation Army at 75*, (Carlisle, PA: Strategic Studies Institute, 2003), 379-380.

Chinese doctrine emphasizes “surprise, deception, and preemption as a means to offset weaknesses in equipment and other areas.”²⁶ Because the U.S. continues to operate throughout the SCS from a position of naval strength, China’s naval presence is offset and leads experts to believe that “the economic risks of extended conflict are so great that significant changes to the status quo are unlikely.”²⁷ Any disruption in the safety and stability of sea lanes in the area would lead to “mutually assured economic destruction” and such a danger is predicted to “moderate the behavior of all participants” in the region.²⁸

However, Andrew Nathan and Andrew Scobell describe the People’s Liberation Army’s “Second Core Mission” area as “Territorial Defense,” with an emphasis on “upholding China’s position with respect to territory that the PRC claims but does not control.”²⁹ China is poised to make further confrontation in the SCS if need be. Ironically, so is Russia in the Arctic if it chooses to do the same. Russian strategy in the Arctic has been very similar to that of China in the SCS over the last 15 years, giving a varying level of emphasis on the use of military assets in the region.³⁰ Russian strategy will be discussed in Chapter 3.

²⁶ U.S. Department of Defense, *Annual Report on the Military Power of the People’s Republic of China for the year ending 2000* (Washington, DC, 2002): 11.

²⁷ Creehan, 126.

²⁸ *Ibid.*, 126.

²⁹ Andrew Nathan and Andrew J. Scobell, *China’s Search for Security* (New York: Columbia University Press, 2012), 299.

³⁰ Caitlyn L. Antrim, “The Next Geographic Pivot: The Russian Arctic in the Twenty-First Century,” *Naval War College Review* 63, no.3 (Summer 2010), 15-38.

CHAPTER 3

Russia's Strategy in the Arctic

Russia's entire northern coastline is inside the Arctic Circle which may give credence to why Russia appears to be taking an aggressive strategic approach towards the region. Heather Conley characterized Russia's northern waters as a "potential shield, a flash point for conflict, and a potential treasure trove of oil, gas and other riches."¹ In line with such thinking, Vladimir Putin has made revitalizing Russian Cold War-era bases one of his top priorities. He and his government are making plans to throw billions of dollars into energy projects, convert 11 Soviet-era Arctic military bases into stations for search and rescue purposes, and send approximately 50 Russian war ships into the region. Russia's 41 ice breakers are in varying levels of readiness, but are already equipped to provide services to the area. The fact that many of them are propelled by nuclear power gives them a stark advantage over other nations in the area that don't share the same capability.²

In March 2015, Russia conducted one of its largest military exercises in the Arctic region, declaring that Russia will have a "self-sufficient Arctic command set up by 2018."³ According to Ekaterina Klimenko, a researcher for the Armed Conflict and Conflict Management Program at the Stockholm International Peace Research Institute,

¹ Heather A. Conley and Caroline Rohloff, *The New Ice Curtain: Russia's Strategic Reach for the Arctic*, (Washington, DC: Center for Strategic and International Studies, 2015), 9.

² Jennifer Peters, "Russia Isn't Trying to Start a War in the Arctic – It's Just Keeping Out the Riffraff," *Vice News*, <https://news.vice.com/article/russia-isnt-trying-to-start-a-war-in-the-arctic-its-just-keeping-out-the-riffraff> (accessed January 6, 2016), 2.

³ Keith Johnson, "Searching for Leads in the Opening Arctic," *Foreign Policy* (September 14, 2015), <http://foreignpolicy.com/2015/09/14/searching-for-leads-in-the-opening-arctic/> (accessed October 14, 2015), 30.

“Both Russia and the NATO states are sort of in this spiral of insecurity with these military exercises.”⁴

U.S. Secretary of Defense, Ash Carter, recently said that "Russia poses an existential threat to the United States by virtue simply of the size of the nuclear [weapons] arsenal that it has . . . Vladimir Putin's Russia behaves . . . as an antagonist. That is new. That is something, therefore, that we need to adjust to and counter."⁵ Even though the U.S. Directive on Arctic Policy states that the U.S. “has broad and fundamental national security interests in the Arctic region and is prepared to operate either independently or in conjunction with other states to safeguard these interests,” unfortunately the U.S. and its Allies do not have the capacity to provide a permanent Phase Zero-type military presence to counter Russia’s posturing.⁶ Although Russia appears to be handling territorial disputes peacefully through diplomatic venues such as the United Nations and Arctic Council, their military posturing suggests that they are ready to create conflict to get what they want, just like they did in Crimea.⁷

A recent study from the Center for Strategic and International Studies quoted Russia’s Deputy Prime Minister as describing the Arctic as Russia’s “Mecca,” insisting that Russia will have presence in the region regardless of Western sanctions and efforts at isolation because “tanks do not need visas.”⁸ “Russia views itself as the Arctic superpower” and “is increasingly willing to use the Arctic to demonstrate Russia’s return

⁴ Peters, 4.

⁵ Voice of America News, “Pentagon Chief: Russia Poses ‘Existential Threat’ to U.S.,” <http://www.voanews.com/content/russia-poses-existential-threat-to-us-says-defense-secretary-carter/2926889.html> (accessed September 23, 2015).

⁶ U.S. President, “U.S. Directive on Arctic Policy,” *International Legal Materials* 48, no. 2 (2009): 375.

⁷ Jon D. Carlson, “Scramble for the Arctic: Layered Sovereignty, UNCLOS, and Competing Maritime Territorial Claims,” *The SAIS Review of International Affairs* vol. 33, no. 2 (2013): 3.

⁸ Conley, 13.

to power on the global stage and in the region.”⁹ The Deputy Prime Minister has even gone as far as making numerous nationalistic statements about the Arctic, stating that the sale of Alaska by Russia in 1867 was a “betrayal of Russian power status” and that Russia has the “right to reclaim (its) lost colonies.”¹⁰ It is debatable as to what extent Russia is willing to go to gain such territory, but according to its leadership, the potential for the use of force in the region exists.

Before becoming the Russian President for the second time, Vladimir Putin released a letter stating his view of how the Russian military should be used in the Arctic. He said, “The activities of the world’s leading military powers in and around the Arctic are forcing Russia to defend its own interests in the region.”¹¹ In this sense he is defending the Russian military buildup in the region as defensive in nature. Fortunately for him, Russia appears to be the only country building up military capacity to such a high level.

In the media, Russia defended its military buildup as being for purely economic and self-defense reasons. What is not clear is if Russia has any intentions on using its military buildup to influence unsettled issues across the Arctic region. So far Russia appears to be cooperative in dialogue but is quickly making diplomatic moves to capitalize on sovereignty claims that it presents as legally justified and warranted. For example, Russia has already submitted a claim for extending its Continental Shelf which

⁹ Ibid., 13.

¹⁰ Trude Pettersen, “Controversial Politician to Head Arctic Commission,” *Barents Observer* (February 2015), <http://barentsobserver.com/en/security/2015/02/controversial-politician-head-artic-commission-06-02> (accessed October 14, 2015), 3.

¹¹ Vladimir Putin, “Being Strong: National Security Guarantees for Russia,” *RT Question More*, February 19, 2012. <https://www.rt.com/politics/official-word/strong-putin-military-russia-711/> (accessed September 15, 2015). Putin outlined his ideas on developing Russia’s defenses in an article published in a Russian journal, *Rossiyskaya Gazeta*. Comments were translated and posted in this article.

would technically give Russia territorial sea rights to most of the Northern Sea Route.¹² Already “around 600 permits are issued annually for shipping along the Northern Sea Route, and the annual volume of cargo is about 4 million tons . . . The estimated potential for the coming 15 years . . . is more than 80 million tons, which means a 20 times increase” from that of one year ago according to the Russian Deputy Prime Minister.¹³

A synopsis of Russia’s more recent actions in Crimea and Syria paint a different picture as to the true Russian intent. Actions speak louder than words, and in this context, Russia seems poised to want to be the sole regional power in the Arctic. The United States, its military, and its allies must be ready to counter further Russian provocation in the region while carefully navigating the waters of international law and its issues of military capacity along its northern Alaska coast. While the U.S. provides a substantial military presence in the SCS as noted in Chapter 2, there is virtually no U.S. military presence in the Arctic to counter Russia’s provocative statements and buildup of military might.¹⁴

Boost to the Russian Economy

¹² GeoLimits Consulting, “What is the extended continental shelf?” <http://www.geolimits.com/services/extended-continental-shelf/continental-shelf/> (accessed March 8, 2016). “Under the United Nations Convention on the Law of the Sea (UNCLOS) the continental shelf is that part of the seabed over which a coastal State exercises sovereign rights with regard to the exploration and exploitation of natural resources including oil and gas deposits as well as other minerals and biological resources of the seabed. The legal continental shelf extends out to a distance of 200 nautical miles from its coast, or further if the shelf naturally extends beyond that limit. Where the continental shelf extends beyond 200 nautical miles a State is required by UNCLOS (Article 76) to make a submission to the Commission on the Limits of the Continental Shelf (CLCS). This submission sets out the coordinates of the outer limits of the shelf and is accompanied by technical and scientific data to support the claim. The Commission assesses the limits and data submitted by the coastal State and makes recommendations. The outer limits of the continental shelf established by a coastal State based on these recommendations are final and binding.”

¹³ Trude Pettersen, “Medvedev orders plan to increase Northern Sea Route capacity,” Barents Observer (June 10, 2015), <http://barentsobserver.com/en/arctic/2015/06/medvedev-orders-plan-increase-northern-sea-route-capacity-10-06> (accessed January 6, 2016), 2.

¹⁴ Carlson, 2.

Over the past three decades Russia has been met with hard times economically as a result of the fall of the Soviet Union. Low oil prices have continued to place immense strain on the economy over the past two years, contributing to a bleak outlook for years to come. The combination of persistently low energy prices and Western sanctions tied to the conflict in Ukraine have led to a substantial devaluation in its ruble.¹⁵ However, the melting of the Arctic and opening up of the Northern Sea Route could provide some relief. As its Arctic coastline becomes more and more accessible due to the shrinking ice, Russia is rapidly building up basing and infrastructure looking to capitalize on what could be an economic plus.

As mentioned in the Introduction, Northern Sea Routes are becoming more and more appealing to cargo shipping companies. The prospect of transiting to and from the eastern and western areas of the world via decreased distances and avoiding costly canal fees are driving companies to the north. Russia is looking to capitalize on the increased presence of ships transiting through the area since most of the Northern Sea Route will take them close to and through Russian perceived territorial waters, or at least until the Transpolar route is accessible.

The need to address the Northern Sea Route in this chapter is two fold. As the ice melts and ships transit the area there will be increased potential for accidents and disasters. Ships could transit the area, encounter a problem and find themselves critically disabled similar to that of the Exxon *Valdez* oil spill of 1989. In that scenario, 250,000 barrels of oil spilled into Alaska's Prince William Sound leaving the area devastated for

¹⁵ Olga Oliker, "The Present and Future of Russia's Economy and Energy Sector," *Center for Strategic and International Studies*, <http://csis.org/event/present-and-future-russias-economy-and-energy-sector> (accessed January 6, 2016).

years while incurring a cost of \$4.3 billion to resolve.¹⁶ Should something like this occur off Russia's northern coast and they not be prepared to minimize the situation's impact, the entire Northern Sea Route could be shut down while the environmental impacts are dealt with. Russia's economy would then be dealt a hefty blow yet again.

However, barring any similar disasters in the region, Russia can profit handily if disaster prevention and response efforts are handled appropriately. Already as much as 20% of Russia's gross domestic product and 22% of its exports are generated from oil fields north of the Arctic Circle.¹⁷ As the Northern Sea Route becomes more and more of a viable option for trade and transportation, Russia is looking to exploit new opportunities such as major port facilities and trading.

Because there is always the possibility for emergencies to happen aboard ships, search and rescue capabilities need to be generated. Infrastructure needs to be brought online to service ships and crews that run into problems along the route. Ice breakers need to be at the ready in order to provide service to ships that find themselves stuck in ice. If taken from a business standpoint, ships moving through the Northern Sea Route could move through like customers similar to that of the Suez and Panama Canals. In fact, Russia and Norway have already joined hands in establishing the Northern Sea Route Information Office, with its main office located in Kirkenes, Norway, additional offices in Murmansk, Russia, and an administrative office in Moscow, Russia. Russia

¹⁶ ExxonMobil, "The Valdez oil spill," <http://corporate.exxonmobil.com/en/environment/emergency-preparedness/spill-prevention-and-response/valdez-oil-spill?parentId=ef7252d1-7929-4f5c-9fa2-05404bde2a0f> (accessed January 6, 2016).

¹⁷ Melissa R. Pegna, "U.S. Arctic policy: The Need to Ratify a Modified UNCLOS and Secure a Military Presence in the Arctic," *Journal of Maritime Law and Commerce*, (April 2013), 3.

and Norway are looking to profit handily from Northern Sea Route passages by charging a moderate fee.¹⁸

Maritime Influence

Over 100 years ago, Alfred Thayer Mahan summed up Russia's geopolitical status to that of which it is today – a land power with limited access to unopposed seas.¹⁹ Russia has traditionally been landlocked away from its ports or has found its Navies cut off from open waters by the Danish straits, the Dardanelles, the Strait of Gibraltar, and the Suez Canal. But that is about to change. With the opening up of the Arctic, Russia will enjoy unhindered access to its northern coast. Half of the marine Arctic is high seas, meaning that freedom of navigation, overflight, research and fishing are limited only by the general rules of international law as defined under the United Nations Convention on the Law of the Sea (UNCLOS).²⁰

Additionally, Russia's Northern Fleet, based primarily out of Severomorsk with secondary bases elsewhere in the Kola Bay, will increasingly be able to transit the Northern Sea Route unhindered. Then, through the Bering Strait because of innocent passage allocated by the UNCLOS, Russian military ships will enjoy open water transit through the Pacific as they please. On the Atlantic side, Russia already enjoys warm season access to international waters through the Barents and Norwegian Seas. However,

¹⁸ Northern Sea Route Information Office, "We provide practical information on shipping and logistics along the Northern Sea Route," <http://www.arctic-lia.com/> (accessed January 6, 2016).

¹⁹ Alfred Thayer Mahan, *The Problem with Asia and its Effect upon International Policies*, (Boston: Little, Brown, 1900). <https://archive.org/stream/problemasiaandi04mahagoog#page/n8/mode/2up> (accessed January 5, 2016).

²⁰ Olya Gayazova, "China's Rights in the Marine Arctic," *The International Journal of Marine and Coastal Law* 28, no.1 (2013): 64.

the seasonal limit will soon disappear as the ice recedes and the waters in and around Severomorsk remain unfrozen.

With Russia's recent annexation of Crimea and its involvement in Syria, Russian officials are demonstrating that ports and sea power are priorities.²¹ Because Sevastopol, (Crimea) and Tartus (Syria) are not geographically located with mainland Russia, President Putin faced the real possibility of losing naval influence in both the Black Sea and Eastern Mediterranean. Although both ports were already established prior to the events that took place in Crimea and Syria, Russian troops moved into the two areas to defend the ports, further solidifying Russia's naval presence in the regions. As such, Russia demonstrated that its willingness to protect its national interests in Crimea and Syria are in line with its actions in the Arctic today.

President Putin's *Maritime Doctrine of the Russian Federation 2020* pronounced "restriction of foreign naval activities in the agreed areas and zones on the basis of bilateral and multilateral agreements with the leading maritime power."²² This statement combined with the country's recent aggression towards securing ports in Crimea and Syria gives the impression that Russia intends to become a prominent maritime power in the Arctic.

Chapter Summary

²¹ Christopher Woolf, "Here's why Russia won't let go of Crimea," *Public Radio International*, <http://www.pri.org/stories/2014-03-03/here-s-why-russia-won-t-let-go-crimea> (accessed February 4, 2016).

²² Russian President, *Maritime Doctrine of Russian Federation 2020*, July 27, 2001, http://www.oceanlaw.org/downloads/arctic/Russian_Maritime_Policy_2020.pdf (accessed January 5, 2016).

In his article entitled “Scramble for the Arctic: Layered Sovereignty, UNCLOS, and Competing Maritime Territorial Claims,” Jon Carlson stated that because of Russia’s amount of coastline, “every country with potential claims in the Arctic has the possibility of overlapping with, or already does overlap, with Russian claims.”²³ He also stated that “what becomes apparent is that if we view seabed claims as essentially territorial claims, and we recognize that conflicting territorial claims are a traditional basis for armed conflict, then the situation in the Arctic is quite serious.”²⁴ He goes further by saying, “the situation becomes even dire once the purported resource variable is added in to the question, as countries are becoming more assertive with regard to securing access to strategic resources such as oil.”²⁵ Ironically, his comments could also be applied to the situation unfolding in the South China Sea today as previously discussed in Chapter 2.

²³ Carlson, 3.

²⁴ Ibid., 3.

²⁵ Ibid., 3.

CHAPTER 4

The United States in the Arctic

The Arctic has critical long-term strategic, ecological, cultural, and economic value, and it is imperative that we continue to protect our national interests in the region, which include: national defense; sovereignty rights and responsibilities; maritime safety; energy and economic benefits; environmental stewardship; promotion of science and research; and preservation of the rights, freedoms, and uses of the sea as reflected in international law.¹

Presidential Executive Order no. 13689

The United States has a strategy for the Arctic, but in an article published in 2013, Melissa Pegna gave a detailed analysis of how the U.S. cannot meet President Obama's Arctic operations strategy goals due to what she called a "tactical force application gap."² The current strategy places Defense of the Homeland in the hands of the United States Coast Guard but fails to address any extended threats that may be too difficult for the Coast Guard to handle.³ With potential adversaries at play, foreign military aggression towards U.S. assets and territory in the region are a real threat considering that approximately 1,000 miles of U.S. coastline will be unprotected from U.S. military maritime influence. The strategy also does not account for ongoing disagreements surrounding Law of the Sea issues currently plaguing relations between the United States and Canada. And in the end, the strategy does not address where and how much funding will be required to meet the intent of the strategy.

¹ Executive Order no. 13689, *Enhancing Coordination of National Efforts in the Arctic* (2015).

² Melissa R. Pegna, "U.S. Arctic policy: The Need to Ratify a Modified UNCLOS and Secure a Military Presence in the Arctic," *Journal of Maritime Law and Commerce*, (April 2013), 169.

³ U.S. President, "Implementation Plan for the National Strategy for the Arctic Region, January 2014," https://www.whitehouse.gov/sites/default/files/docs/implementation_plan_for_the_national_strategy_for_the_arctic_region_-_fi....pdf (accessed August 16, 2015), 1.

Ms. Pegna claimed that the U.S. “must reevaluate the gap between current capabilities and future wishes” when addressing its Arctic strategy.⁴ She also provided an argument that Maritime Domain Awareness (MDA) deficiencies, inefficient assets, and a lack of required assets puts the U.S. in a position of playing catch-up with Russian and Canadian Arctic strategies. As a solution she provided three recommendations: expand and modernize the U.S. Arctic Fleet, build a permanent U.S. base on Alaska’s northern coast, and ratify the United Nations Convention on the Law of the Sea but with a caveat of exempting the Arctic region from Article 76 regulations.⁵ While three years have passed since Ms. Pegna released her article, her analysis is still valid. From here on her assessment will be used as a starting point for further analysis.

U.S. Strategy in the Arctic

The Implementation Plan for The National Strategy for the Arctic Region, will require three lines of effort:

- Advance United States security interests
- Pursue responsible Arctic region stewardship
- Strengthen international cooperation⁶

Normally the Department of Defense provides the muscle for advancing United States security interests through forward presence and basing, but not in the Arctic.

According to the Implementation Plan, the Departments of Transportation, Homeland Security, and State are charged with preparing for increased activity in the Maritime

⁴ Pegna, 169.

⁵ Ibid., 169. Article 76 of UNCLOS focuses on providing states the right to claim their jurisdictional boundary for economic and natural resources gained through their extended continental shelf (ECS).

⁶ U.S. President, “Implementation Plan for the National Strategy for the Arctic Region, January 2014,” 1.

Domain, enhancing Arctic Domain Awareness, preserving Arctic Region Freedom of the Seas, and Promoting International Law and Freedom of the Seas. The Department of Defense has been designated as a supporting agency throughout the document except for a section entitled “Developing a Framework of Observations and Modeling to Support Forecasting and Prediction of Sea Ice” where it will take the lead.⁷

The U.S. has approached the Arctic region through primarily diplomatic means. A UN chartered coordinating body named the Arctic Council provides the U.S. with an avenue to coordinate and debate Arctic issues with fellow Arctic nations with varying results.⁸ Without getting into specifics differences, all eight Arctic nations that make up the Arctic shoreline have been cooperative and law abiding to this point. However, should differences arise to the point that diplomacy is not enough, the Department of Defense could find itself tasked with increasing its role in the region.

The USCG is the main U.S. military branch operating in the Arctic because of their specialized training, assets equipped to operate in the Arctic, and because Executive Order 7521 assigns the USCG with sole responsibility for icebreaker operations.”⁹ “The USCG has recently made several efforts to address the required objectives and missions of the Arctic by “setting up Forward Operating Locations on the northern shores of Alaska, including the town of Barrow.”¹⁰ In addition, the USCG has "also deployed light-ice capable 225-foot ocean-going buoy tenders for training and launched two aircraft for maritime domain awareness research, although this can only be conducted

⁷ U.S. President, “Implementation Plan for the National Strategy for the Arctic Region, January 2014,” 2.

⁸ U.S. Department of State, “Arctic, Diplomacy in Action,” <http://www.state.gov/e/oes/ocns/opa/arc/> (accessed September 2, 2015).

⁹ Pegna, 4.

¹⁰ U.S. President, “Implementation Plan for the National Strategy for the Arctic Region, January 2014,” 2.

during the warmer months due to the assets' inability to operate in the heavy winter ice.”¹¹

Basing and Facilities

Critical in any movement forward will be the requirement of the U.S. military to rebalance its assets to the region with the intent of providing forward presence and patrolling. As already discussed, the U.S. will have vital interests in the area that meet National Security Strategy intentions.¹² Forward presence in the region would provide the U.S. the following:

- A real time ability to protect U.S. interests in the area if threatened
- Regulation and monitoring of commerce and military traffic close to its shores
- Unhindered access to the Arctic waters for U.S. military and commercial assets
- The creation of an environment that could deter outside aggressors from adversely impacting U.S. interests¹³

Part of basing issues revolves around creating an ability to conduct search and rescue operations and provide crisis response should incidents happen at sea. The Northwest Passage will bring with it all the dangers associated with operating in maritime routes so close to U.S. shores as mentioned earlier regarding Exxon’s *Valdez* oil spill in 1989.¹⁴ Because the potential for disaster cannot be discounted, disaster relief and

¹¹ Admiral Robert Papp to U.S. Senate, *Testimony of Commandant Admiral Robert Papp, USCG, before the Senate Committee on Commerce, Science, and Transportation, Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard, "Defending U.S. Economic Interests in the Changing Arctic: Is there a Strategy?"* July 27, 2011.

¹² U.S. President, National Security Strategy (Washington DC: Government Printing Office, February, 2015), 3.

¹³ While this thesis can provide no empirical proof that a build-up of presence in the region would in fact result in an environment of deterrence, having the assets in the region to patrol U.S. waters will demonstrate to the world that the U.S. intends to protect what is legally its own.

¹⁴ ExxonMobil, “The Valdez oil spill,” <http://corporate.exxonmobil.com/en/environment/emergency-preparedness/spill-prevention-and-response/valdez-oil-spill?parentId=ef7252d1-7929-4f5c-9fa2-05404bde2a0f> (accessed January 6, 2016).

prevention have been at the heart of debate at Arctic Council and United Nations meetings. As climate change opens up the waters of northern routes, Arctic countries are finding the need be prepared to prevent and respond to incidents such as oil spills, groundings, ice impediment requiring ice breaker assistance, and many other potentially devastating things that could happen in the Arctic. What they are realizing is that in the end the country associated with where the incident occurs will bear the most consequence should an incident occur.¹⁵

Search and rescue assets and capabilities are stretched thin in the Alaska region providing little coverage to Alaska's northern coast and economic exclusion zone. The most northern U.S. military bases in Alaska are located near Fairbanks which is hundreds of miles away from any coast. The northern shores of the Chukchi and Beaufort Seas are void of any military basing facilities and rarely patrolled. Traditional Coast Guard search and rescue efforts are sourced from bases in Juneau, Anchorage and Kodiak, but nowhere near the northern coast.¹⁶ But even so, "the U.S. entered into an international agreement on May 12, 2011 through the Arctic Council to support Search and Rescue in the Alaskan Arctic."¹⁷ Search and rescue responsibilities amongst Arctic nations are delineated below in Figure 6.

¹⁵ Arctic Council, "Emergency Prevention and Preparedness Response," United Nations, <http://arctic-council.org/eppr/completed-work/oil-and-gas-products/arctic-guide/> (accessed January 8, 2016).

¹⁶ U.S. Coast Guard District 17 contact page, <http://www.d17.uscgnews.com/go/doc/4007/2156574/District-17>

¹⁷ U.S. Army Corps of Engineers, Alaska Deep-Draft Arctic Port System Study, March, 2013, http://www.dot.state.ak.us/stwddes/desports/assets/pdf/port_study.pdf (accessed January 5, 2016).

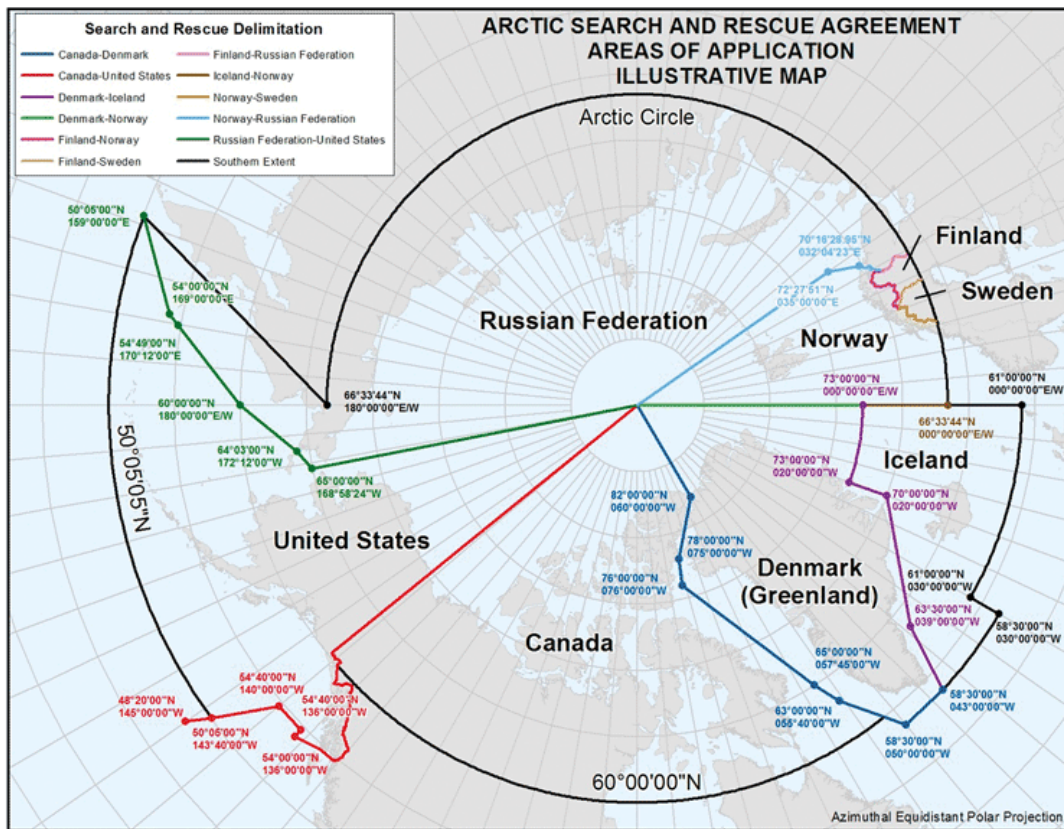


Figure 6. Search and Rescue responsibility areas as agreed upon by members of the Arctic Council.¹⁸

Sovereignty

Ideally the United States would enjoy rights to a United Nations (UN) approved Extended Continental Shelf (ECS) off its Arctic shores. Article 76 of the UNCLOS permits states to claim rights to extended continental shelves after approval from the United Nations, but for very specific reasons the United States disagrees and has not ratified the UNCLOS. Because it has not completed ratification, the U.S. is limited

¹⁸ Wikipedia Commons, "File:Arctic search and rescue agreement - areas of application - illustrative map.gif," https://commons.wikimedia.org/wiki/File:Arctic_search_and_rescue_agreement_-_areas_of_application_-_illustrative_map.gif (accessed January 7, 2016).

legally in its arguments for a claim to its own ECS rights.¹⁹ Should the United States ratify the UNCLOS, then a UN mandated ten year time limit for submitting for approval of ECS rights would begin. Before that ten year mark passes the U.S. could define its ECS boundary, submit for approval, and then eventually gain legal rights to its then defined and approved ECS.²⁰

But Russia and Canada are making ratification of the UNCLOS difficult. Both countries are using Article 76 as a “sounding board . . . to test their ECS claims by announcing that the two Arctic passage ways are under each state’s complete jurisdiction.”²¹ U.S. officials disagree and refuse to ratify the UNCLOS because of such interpretations. Compliance with Article 76 would give Russia and Canada stark advantages over the U.S. by “diminishing U.S. sovereignty and freedom of navigation and cause endless disputes . . .”²²

Canada stresses in their Arctic strategy that the number one Arctic foreign policy priority is that of protecting the sovereignty of its northern territory, including its expected ECS.²³ In line with this strategy, Canada submitted a request for ECS rights in December 2013 which would give Canada sole rights to most of the Northwest Passage. The routing of the Passage takes shipping through an archipelago area which Canada

¹⁹ U.S. State Department, “U.S. Extended Continental Shelf Project: How is an ECS determined?” Office of Website Management, Bureau of Public Affairs, <http://www.continentalshelf.gov/about/index.htm>, (accessed November 18, 2015).

²⁰ United Nations, “Commission on the Limits of the Continental Shelf (CLCS): The Continental Shelf, United Nations Division for Ocean Affairs and the Law of the Sea,” Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, http://www.un.org/depts/los/clcs_new/continental_shelf_description.htm (accessed November 18, 2015).

²¹ Pegna, 6.

²² Ibid., 6.

²³ Canada, “Statement on Canada’s Arctic Foreign Policy,” Global Affairs Canada, http://www.international.gc.ca/arctic-arctique/arctic_policy-canada-politique_arctique.aspx?lang=eng (accessed November 16, 2015).

claims to be “Canadian internal waters.”²⁴ In conflict with this thinking, the United States classifies navigation through the same archipelago area as innocent passage of what should be international waters (Figure 7).



Figure 7. Map of Northwest Passage²⁵

Ms. Pegna argues that Article 76 could “pose serious issues for U.S. military maritime navigation, economics, and Maritime Domain Awareness necessities as these claims would overlap and be difficult to settle.”²⁶ She argues that if the Northwest Passage were under Canadian jurisdiction, then any movement of U.S. military assets

²⁴ United Nations, “Commission on the Limits of the Continental Shelf (CLCS): Outer limits of the continental shelf beyond 200 nautical miles from the baselines: Submissions to the Commission: Partial Submission by Canada,” Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, http://www.un.org/depts/los/clcs_new/submissions_files/submission_can_70_2013.htm (accessed November 16, 2015).

²⁵ Hobart King, “What is the Northwest Passage?” *Geoscience News and Information*, <http://geology.com/articles/northwest-passage.shtml> (accessed January 6, 2016).

²⁶ Pegna, 4.

could be restricted, negating the general ideal of freedom of the seas shared by the maritime community.²⁷ To test such a theory, the U.S. Navy sent ships and submarines through the Passage without notification to Canada based upon the philosophy that the Passage is in International Waters and should not be restricted.²⁸ It remains to be seen if this will continue to be the trend.

In Russia's strategy, prioritization is given to the approval of their ECS as part of the first phase of their Arctic Strategy Implementation Plan.²⁹ The Arctic Ocean is defined by approximately 15,000 miles of Russian shoreline giving Russia immediate access to the area and lawful justification to claim territory internationally recognized under the definitions of territorial seas and an Economic Exclusion Zone.³⁰ Russia submitted an ECS request in August 2015 which would give them rights to an area that approaches the North Pole.³¹ Approval of its submission would give Russia potential mitigating control over who could transit the Northern Sea Route and at what price such a transit would cost, similar to that of Canada and the Northwest Passage.³² Additional costs would be incurred by shipping companies and, even more importantly to the U.S.,

²⁷ Ibid., 4.

²⁸ Hobart King, "Oil and Natural Gas Resources of the Arctic," *Geoscience News and Information*, <http://geology.com/articles/arctic-oil-and-gas/> (accessed January 6, 2016).

²⁹ Russian Federation, "The Russian Arctic Strategy 2020: The Russian Arctic Strategy for the Period up to 2020," Russian Federation, http://www.star.nesdis.noaa.gov/star/documents/meetings/Ice2013/dayOne/Sokolov_Russian.pdf (accessed November 16, 2015).

³⁰ United Nations. "United Nations Convention on the Law of the Sea." December 10, 1982. http://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf (accessed November 15, 2015).

³¹ United Nations, "Submissions, through the Secretary-General of the United Nations, to the Commission on the Limits of the Continental Shelf, pursuant to article 76, paragraph 8, of the United Nations Convention on the Law of the Sea of 10 December 1982: Russian submission," Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, http://www.un.org/Depts/los/clcs_new/commission_submissions.htm (accessed November 15, 2015).

³² United Nations, "Commission on the Limits of the Continental Shelf (CLCS): The Continental Shelf, United Nations Division for Ocean Affairs and the Law of the Sea," Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, http://www.un.org/depts/los/clcs_new/continental_shelf_description.htm (accessed November 18, 2015).

there would be an increased threat to U.S. military movements anywhere from the coast of Russia to out near the North Pole. The stage would then be set for a Russian strategy of Anti-access, Area-denial against U.S. forces along its northern coast.

Even with a race to submit ECS approvals, the current state of affairs in the Arctic Ocean remains stable due to diplomatic cooperation and debate. Current avenues of approach are being handled solely through diplomatic means such as that of the United Nations, the International Maritime Organization, and the Arctic Council. But should diplomatic efforts fail, what the U.S. does now will have a direct and immediate effect on what strategy it can pursue in the years to come when commercial traffic and human presence is expected to rapidly increase.³³ Nations could quickly find themselves forced to conflict in response to competing interests with other nations in the region.³⁴ This, of course, is not ideal.

Increased Responsibility

The U.S. is finding itself in quite a bind in trying to figure out how to cover its increased responsibility of search and rescue and disaster prevention and response off its northern Alaska coast. The sheer vastness of the area and the immense distances needed in order to cover the area create quite a dilemma. Coast Guard vessels already routinely patrol the Bering Sea, but only initial studies have been conducted with a goal of trying to figure out how to provide coverage over the increased northern area.³⁵

³³ U.S. Department of the Navy, *Arctic Roadmap, 2014-2030* (Washington, DC, 2014), 6.

³⁴ Jon D. Carlson, "Scramble for the Arctic: Layered Sovereignty, UNCLOS, and Competing Maritime Territorial Claims," 3.

³⁵ Admiral Robert Papp to U.S. Senate, *Testimony of Commandant Admiral Robert Papp, USCG, before the Senate Committee on Commerce, Science, and Transportation, Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard, "Defending U.S. Economic Interests in the Changing Arctic: Is there a Strategy?* July 27, 2011.

Section 721 of the Coast Guard and Maritime Transportation Act of 2012 directed the Commandant to “complete a study on the feasibility of establishing a deep water seaport in the Arctic to protect and advance strategic United States interests within the Arctic region.”³⁶ The study area includes more than 3,000 miles of coastline, “which is one and half times the distance of the eastern coast of the U.S. from Canada to the tip of Florida.”³⁷

In 2013, a deep water draft study was conducted by the U.S. Army Corps of Engineers investigating the possibilities of building a port facility along the northern 3,000 miles of Alaskan coastline. The study showed that only four potential port sites met criteria for building such a port facility. Criteria included port proximity to mission (mining, oil and gas), footing required to support a port infrastructure, an ability to receive support and supplies via land, natural water depth conducive to installing piers, and navigation accessibility in and out of surrounding maritime areas. Locations meeting this criteria included Nome, Port Clarence, Cape Darby, and Barrow, each with varying levels of compliance. The study concluded with recommendations to conduct more research on those four ports which should lead to a more concrete determination as to where and when to invest in a port facility. Unfortunately fiscal constraints are limiting further progress and further investigation will need to be done in order to narrow down a location for aviation assets.³⁸

³⁶ U.S. Army Corps of Engineers, Alaska Deep-Draft Arctic Port System Study, March, 2013, http://www.dot.state.ak.us/stwddes/desports/assets/pdf/port_study.pdf (accessed January 5, 2016), 2.

³⁷ Ibid., 10.

³⁸ Ibid., 4.

CHAPTER 5

Conclusions and Recommendations

This thesis provided the background and rationale for what the United States military should do more to shape the future military environment of the Arctic region. The protection of U.S. national sovereignty and of U.S. assets and interests around the world have traditionally been placed in the hands of the United States military. No indication has been made in overarching U.S. strategy that this responsibility will change any time soon. However, America's strategy in the Arctic is missing a key link of tasking which would enable the U.S. military to protect the Alaskan shoreline and waterways. Unfortunately, up until this point only minimal movement has been made in enabling the military to do so.

Conclusions

Both the Arctic region and the South China Sea feature the presence of actors that have been pursuing self-serving interests and/or the promotion of an adherence to international law. Whether it be a contest for resources, protection of their commercial shipping traffic in today's global markets, or as a defense to those they perceive as hostile to their own country, nations in either region are doing and will do what they think is best in pursuance of their national interests.

Because sovereign nations are normally rational actors and have been shown to act in accordance with these basic concepts, similarities have been made between the two bodies of water that would invite the notion of treating the two regions similarly

regarding overarching strategies. But U.S. officials are not treating the two areas the same strategically. The South China Sea enjoys a robust American military presence fueled by President Obama's 2012 proclamation that the United States will take a "pivot" towards the Asian Pacific region in pursuit of its strategic goals.¹ But the U.S. is showing no interest in pursuing a similar military forward presence strategy in the Arctic region.

A comparison was made to the interactions of countries in the South China Sea to that of the Arctic region. Because of unsettled territorial disputes in the SCS, China continues to contest and influence its neighbors in pursuance of its national interests through diplomacy and military interaction. One of the key factors in stopping further Chinese aggression against its neighbors and U.S. allies in the region has been the presence of U.S. military assets. The same scenario should exist in the Arctic should territorial disputes go unsettled in the coming years, but the U.S. military is not currently prepared to answer the call when that time comes.

The only real difference between the two regions is the fact that the Arctic region enjoys a colder climate than the SCS, leading to a lower tolerance for commercial shipping routes and an increased difficulty in exploiting natural resource exploration. But this factor is quickly changing. Arctic waterways are predicted to come alive in the next two decades with transiting vessels and mariners fishing in what then will be new fishing grounds. Resources will be pursued, sovereignty claims will be enforced, and tensions could quickly escalate to the point of military confrontation. Such a case has

¹ Kurt Campbell and Brian Andrews, "Explaining the US 'Pivot' to Asia," *Chatham House*, https://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Americas/0813pp_pivottoasia.pdf (accessed November 18, 2015).

already taken place in the SCS giving a precursory look as to what life could look like in the Arctic should an aggressor nation look to push the limits of what they interpret as international law and sovereignty. The U.S. military must be ready to react and defend.

Recommendations

Basing and Infrastructure

With increased responsibilities such as search and rescue and the demand of protecting Alaskan waters from potential disasters, the United States must build up its infrastructure and capacity for coverage in the Arctic region. Such a buildup is also warranted due to the lack of U.S. military presence in the region needed in order to provide sovereignty defense. A given are the economic constraints placed upon the military due to decreased budgets and sequestration but that cannot be the limiting factor.

The United States military is charged by Congress with defending America and its assets regardless of budgetary constraints. Continued dialogue between Congress and the U.S. military must be clear and concise in what basing structure and assets are required leading to informed decisions by key leaders as to where risk must lie as related to other tasking around the world.

Dialogue with commercial entities must also be high on the agenda in order to provide a mitigating factor for the development of proper basing and infrastructure. Joining forces with the commercial sector could provide needed relief to military commanders in trying to figure out how to increase presence in the region while minimizing costs. The costs for generating port facilities and capabilities such as search and rescue and disaster prevention and response should be jointly shared by both the U.S.

government and commercial entities investing in exploring the benefits that the Arctic is predicted to provide.

Asset Allocation

Additional assets should be allocated to NORTHCOM in order to patrol the Arctic region. NORTHCOM has been designated responsibility for the region according to the Unified Command Plan, but traditionally has had the advantage of using ice coverage as a defense along its northern zone. But as the ice melts, the northern zone will open up and NORTHCOM will find itself wanting to task units to patrol those open waters. Unfortunately as it stands today there will be no assets available to do so leaving a gap in tasking of homeland defense. Although increased risk would be assumed by other Combatant Commanders, proper allocation of assets to NORTHCOM must be assessed.

UNCLOS

In line with Ms. Pegna's article, the United States should ratify the United Nations Convention on the Law of the Sea (UNCLOS) with a caveat of exempting the Arctic region from Article 76 which outlines Continental Shelf claims. While differences exist between the U.S. and Canada over Continental Shelf claims, usage of the Northwest Passage will surely bring economic benefit to both countries as the ice melts. Article 76 and the Continental Shelf issue may not be resolved for many years to come, but that doesn't mean that open dialogue and shared responsibility of the Northwest Passage can't take place. The United States shares a portion of the shoreline along the route and could

benefit from shared search and rescue and disaster prevention and response initiatives. Existing differences over Continental Shelf claims should not hold up unity of effort in those areas.

Military Cooperation

U.S. military exercises should be conducted in northern Alaskan waters as a demonstration of its commitment to the area. Military to military engagements should also be initiated with NATO allies and friendly neighbors in the region which would show a form of deterrence towards Russian military build-up. Further analysis of exactly who and when such exercises and engagements should take place is required and is not addressed in this thesis.

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Vita

Commander Zaiko was commissioned into the Navy through the United States Naval Academy in 1998. He is a C-2A Greyhound (COD) Aircraft Commander with over 2,200 hours total flying time, earning qualifications as a C-2A flight instructor and C-2 NATOPS Program Manager. CDR Zaiko served operational tours at VRC-40, VAW-120, Carrier Strike Group THREE, and again at VRC-40 as a Department Head while flying in support of Operations ENDURING FREEDOM, IRAQI FREEDOM and NEW DAWN. In his previous assignment, CDR Zaiko served as the N310B and Watch Floor Supervisor on OPNAV Staff-N31 (Operations, Plans, and Policy). While on Carrier Strike Group THREE he served as the Admiral's Flag Secretary/N1 along with earning qualifications as a Flag Tactical Action Officer. During his instructor tour at VAW-120 he successfully landed a C-2A carrying 25 passengers on its belly in Norfolk, VA after its landing gear failed to deploy, earning him an Air Medal for Individual Action, named 2006 Greyhound of the Year (Shore), and received the 2006 Order of Daedalians Exceptional Navy Pilot of the Year Award. Educationally, CDR Zaiko has earned a Masters at the Naval War College and JPME 2 at the Joint Forces Staff College.